Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

It will be noticed (Chart I) that each county touching and compared with Darlington shows an increase, while Darlington shows a decrease in typhoid—Darlington shows a decrease of 57.9 per cent from 1917 to 1919.

Orangeburg shows a decrease of 40 per cent (Chart II). This is one of the largest and most populous counties in South Carolina, and it would naturally take longer for results to show. The State at large has gradually decreased its typhoid death rate, as illustrated in Chart III, from 35.2 per 100,000 in 1915 to 21.7 per 100,000 in 1919.

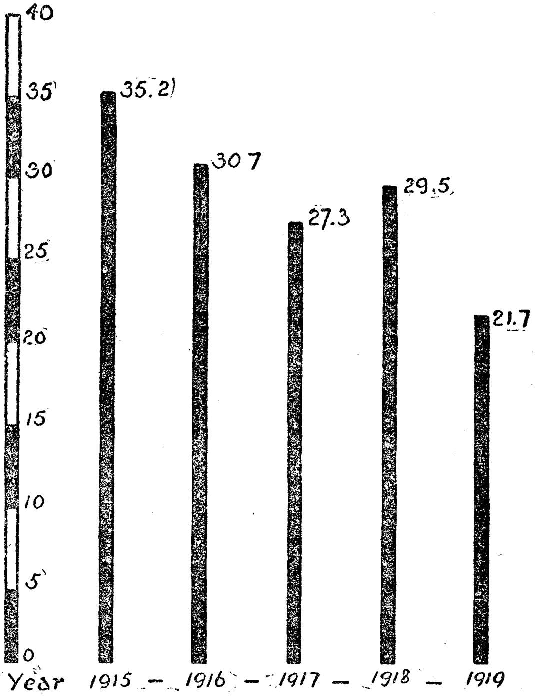

CHART III.—State typhoid death rate per 100,000.

CONCLUSIONS.

The reduction of typhoid fever is largely a matter of education. The building of privies alone will not check typhoid entirely, but will reduce it. We have purposely held no campaigns of free inoculations of antityphoid serum in Darlington and Orangeburg Counties, and the results shown are due to educational work and privy building alone, and not to inoculations. If this disease can be so materially reduced by education, it would seem that all other diseases of which the cause is known could be reduced in a similar way.

A county health organization is necessary, as one physician or nurse without assistance is not adequate for the supervision of the health conditions of a whole county.

PUBLIC HEALTH ENGINEERING ABSTRACTS.

From time to time abstracts of articles pertaining to sanitary engineering, of interest to sanitary engineers and other public-health workers, will be published in Public Health Reports. In presenting these abstracts no attempt is being made to cover completely the field of current literature on the subject. These abstracts give only such detail as will outline the subject matter of the articles and serve as a guide to persons interested.

Protection of surface water supplies against contamination.—D. X. Goodnough, Chief Engineer, Massachusetts State Board of Health.—*Engineering and Contracting,* vol. 54, No. 15, Oct. 13, 1920, p. 369.

Discussion of difficulties encountered by waterworks officials and health officers in enforcing necessary sanitary regulations for the prevention of the pollution of water-supply reservoirs, especially from the use of such reservoirs for boating and fishing. Claims are made by those in favor of fishing and boating privileges that (1) the presence of too many fish in a reservoir is a detriment to the quality of the water; (2) the presence of fish results in the pollution of the water; (3) fishing should be permitted to increase the food supply, notwithstanding the fact that the infection of the water supply is most likely to occur under such conditions owing to typhoid carriers. At Peabody, Mass., a gastroenteritis epidemic involved 500 persons in 1915. Constant vigilance must be maintained by water-supply officials if this menace to the purity of water supplies is to be removed.

Activities of division of engineering of Illinois Department of Public Health.—*Engineering and Contracting,* vol. 54, No. 15, Oct. 13, 1920, p. 381.

The activities include (1) control of installation of water-supply and sewer systems, including water-purification plants and sewage-treatment plants, and examination and approval of plans for all such installations; (2) studies of stream pollution; (3) sanitary surveys; (4) supervision over sanitation of common carriers, including sources and handling of water supplies; (5) sanitary inspections of public-school buildings; (6) malaria control by mosquito eradication; (7) studies of city waste collection and disposal and street cleaning; (8) investigations of typhoid fever and other diseases that may be water borne; (9) public addresses on sanitary engineering topics; (10) informal advice by correspondence on sanitary matters.

Nitrate content of certain waters considered bacteriologically safe.—M. Starr Nichols, State Laboratory of Hygiene, University of Wisconsin, Madison, Wis.—*Journal of Industrial and Engineering Chemistry,* vol. 12, No. 10, Oct., 1920, p. 987.

From nitrate-nitrogen findings of 808 Wisconsin waters these conclusions are reached: (1) An excessive quantity of nitrate nitrogen is not a normal component of safe ground waters; (2) many difficulties must be surmounted before it will become possible to set an accurate standard, but from the results here presented and from the evidence contained in the literature, a water containing 5 or more p. p. m. of nitrate nitrogen should be considered as a potentially dangerous supply until a sanitary survey can be made by a competent person; (3) the nitrate-nitrogen determination should be included in every ground-water examination.

Design of aspirators for sterilizing waters.—A. E. Walden, Chief Engineer, Baltimore County Water and Electric Co., Baltimore, Md.—*Mechanical Engineering*, vol. 42, No. 10, Oct., 1920, p. 562.

An extensive series of tests was made to perfect the design of an aspirator to efficiently unite water and ozone. For satisfactory operation the heads of water pumped against should not be reduced much below 12 feet. The length of the jet discharged from the nozzle striking either at the throat or at some point in the diverging tube below the throat gave the best results. The tests indicated the importance of providing not less than 20 per cent excess air velocity in testing over that in operation in sterilizing, to allow for friction in tail pipe and mixers or devices below the throat, including the change in the specific gravity of the mixture of air and water. The final aspirators were of cast iron, enameled with the best possible white porcelain enamel; but even this is subject to deterioration.

The water supply of the American Expeditionary Forces.—Edward Bartow.—*Journal of Industrial and Engineering Chemistry*, vol. 12, No. 9, Sept., 1920.

Discussion of water supplies and water laboratories established in France for the use of the United States Army, with procedure for analyses of water.

Report of sewage experimental investigations at West New Brighton, Staten Island, N. Y.—Warren R. Borst, Borough Hall, Staten Island, N. Y.

Experiments with plain sedimentation tanks, Imhoff tanks with and without colloidors, and sterilization of sewage with chlorine gas and hypochlorite. A. The experimental results with respect to tank treatment are: (1) Imhoff tanks having a detention period of from one to two hours and velocities of flow of from 0.007 foot per second to 0.015 foot per second will remove from 50 to 60 per cent of suspended solids and from 30 to 40 per cent of oxidizable organic matter; (2) Imhoff tanks provided with colloidors in the settling compartment with the sewage at this station gave a more stable effluent than the ordinary Imhoff tank; (3) the siphon tank gave very satisfactory results and has shown considerable advantage over other sedimentation tanks, in that the settling solids are entirely separated from those flowing through the chamber and can be treated or removed while in a fresh state and free from the disagreeable odors usually attending the disposal of sludge. B. In the disinfection of sewage, chlorine gas is more efficacious than hypochlorite of lime, although either when applied in sufficient amount gives satisfactory bacterial purification. C. The experiments in sludge drying, although not carried through to conclusive results, indicate that the sludge may be treated without creating a nuisance by separate digestion, by vacuum drying, or may be made nonputrescible by aeration.